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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,452

03/15/2004

Ajit Gaunekar

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EXAMINER

CHANG, RICK KILTAE

ART UNIT

PAPER NUMBER

3726

MAIL DATE

DELIVERY MODE

05/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/801,452

Applicant(s)

GAUNEKAR ET AL.

Examiner

Rick K. Chang

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-24 is/are pending in the application.
- 4a) Of the above claim(s) 15-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected for the following reason: remove “and method” in line 3. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Safabakhsh et al (US 4,990,051) in view of Fujiwara et al (US 5,160,877), and further in view of Pan et al (US 5,492,313).

Safabakhsh discloses an ejector tool (tip of 39 facing 42); a shaft (39); a linear motor (col. 4, line 60; a forcer and a stator are inherent); the linear motor is a cylindrically-shaped (32 is circle)

Safabakhsh fails to disclose coils and permanent magnets. Further, Safabakhsh fails to disclose first and second flexure bearings positioned opposite sides, a flexing direction and a pushing force are aligned, flexing portions, spacers, a flexible disc, and regularly-shaped slots with polar symmetry.

Fujiwara discloses coils (24a-24d) and permanent magnets (51-54 and 61-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Safabakhsh by providing coils and permanent magnets, as taught by Fujiwara, for the purpose of efficiently moving a shaft in a linear motor.

Pan discloses first and second flexure bearings positioned opposite sides (col. 5, lines 54-67 and col. 6, lines 1-5), a flexing direction and a pushing force are aligned (col. 5, lines 54-67 and col. 6, lines 1-5), flexing portions (22), spacers (24 and 26), a flexible disc (22), and regularly-shaped slots with polar symmetry (30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Safabakhsh by providing first and second flexure bearings positioned opposite sides, a flexing direction and a pushing force are aligned, flexing portions, spacers, , a flexible disc, and regularly-shaped slots with polar symmetry, as taught by Pan, for the purpose of providing improved radial stiffness, low axial stiffness and increased fatigue strength than a ball bearings.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Safabakhsh et al (US 4,990,051)/Fujiwara et al (US 5,160,877)/Pan et al (US 5,492,313) as applied to claim 1 above, and further in view of Arao et al (US 4,964,211).

Safabakhsh/Fujiwara/Pan fail to disclose a force sensor.

Arao discloses a force sensor (3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Safabakhsh/Fujiwara/Pan by providing a force sensor, as taught by Arao, for the purpose of preventing damage to the component by applying too much force.

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5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Safabakhsh et al (US 4,990,051)/Fujiwara et al (US 5,160,877)/Pan et al (US 5,492,313) as applied to claim 1 above, and further in view of Mutschler et al (US 4,472,668).

Safabakhsh/Fujiwara/Pan fail to disclose a position sensor.

Mutschler discloses a position sensor (169).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Safabakhsh/Fujiwara/Pan by providing a position sensor, as taught by Mutschler, for the purpose of determining the position of the ejector tool in relation to the pick-up tool.

### ***Response to Arguments***

6. Applicant's arguments filed 3/6/07 have been fully considered but they are not persuasive.

The examiner acknowledges the applicants' election of the subcombination.

Using a bearing is well known in the art. Pan discloses in col. 4, lines 42-43 a hub utility hole 28 is for receiving a drive shaft. Further, 58 is also located in the middle of the bearing for receiving a drive shaft. Since 38 and 40 are located next to each other, they are located opposite sides. In reference to the Safabakhsh reference, one location on the actuator is located relative to the first bearing and the second bearing, located near the tip, is located in another location apart on the actuator opposite from the one location. Therefore, bearings are located opposite side of the actuator.

### ***Interviews After Final***

7. Applicant note that an interview after a final rejection must be submitted briefly in writing the intended purpose and content of the interview (the agenda of the interview must be in writing). Upon review of the agenda, the Examiner may grant the interview if the examiner is convinced that disposal or clarification for appeal may be accomplished with only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

*Conclusion*

8. Please provide reference numerals (either in parentheses next to the claimed limitation or in a table format with one column listing the claimed limitation and another column listing corresponding reference numerals in the remark section of the response to the Office Action) to all the claimed limitations as well as support in the disclosure for better clarity (optional). Applicants are duly reminded that a full and proper response to this Office Action that includes any amendment to the claims and specification of the application as originally filed requires that the applicant point out the support for any amendment made to the disclosure, including the claims. See 37 CFR 1.111 and MPEP 2163.06.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

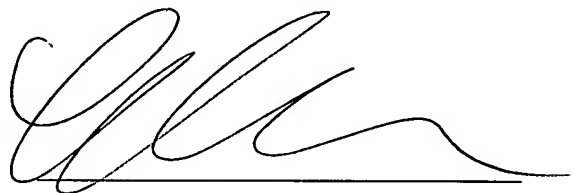
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick K. Chang whose telephone number is (571) 272-4564. The examiner can normally be reached on 5:30 AM to 1:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Richard Chang', written over a horizontal line.

**RICHARD CHANG**  
**PRIMARY EXAMINER**

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RC  
May 14, 2007